

Logania wendyae (Loganiaceae), a new species from south-west Western Australia

Ray Cranfield¹ and Greg Keighery²

Science Division, Department of Environment and Conservation,
¹Brain Street, Manjimup, Western Australia 6258, ²PO Box 51, Wanneroo, Western Australia 6065

Abstract

Cranfield, R.J. and Keighery, G.J. *Logania wendyae* (Loganiaceae), a new species from south-west Western Australia. *Nuytsia* 16(1): 11–14 (2006). *Logania wendyae* Cranfield & Keighery, a new species endemic to the Jarrah Forest bioregion of south-western Western Australia is described, illustrated and mapped.

Introduction

The new species described here is known only from three collections made in the Argyle and Dardanup forest blocks around Donnybrook in south-western Western Australia. The original collection of this distinctive new species was made in 1996 during a flora survey of Dardanup Forest Block (Keighery *et al.* 1997).

This taxon was originally considered to represent *Logania serpyllifolia* subsp. *angustifolia* (Benth.) B.J. Conn or one of its variants, however, several characters were recognised as different, such as flower size, hairiness of leaves and apparent habitat differences. On this basis, plants from the Donnybrook area are considered to represent a new taxon of *Logania* sect. *Stomandra* (R. Br.) DC., described here as *L. wendyae*.

Taxonomy

Logania wendyae Cranfield & Keighery, *sp. nov.*

Fruticulus erectus ad 5–17 cm altus. Ramuli teretes, plus minusive sulcati, dense tomentosi. Folia subsessilis, lamina linearis–anguste ellipticus, 9–25 mm longus, 2–5 mm latus. Inflorescentia terminales, 1–3 flores, flores perfecti, pedunculus 0.5–1 mm longus. Corolla 9–12 mm longa, tubus 4.5–6 mm longus, lobi obovati, 4.5–6 mm longi. Stamina in sinu inter lobes corollae insertae.

Typus: Dardanup forest block [precise locality withheld], Western Australia, 30 Oct. 1996, G.J. Keighery 15011 (*holo*: PERTH 05121906).

Decumbent dwarf *shrub*, 5–17 cm high, up to 30 cm wide with a spreading woody rootstock. *Branches* ridged, moderately to densely hairy, hairs patent to spreading, white, usually 0.2–1 mm long. *Leaves* discolorous, subsessile, moderately to densely hairy; stipules membranous, triangular, 1.5–3 mm long, apex obtuse to acute; lamina lanceolate to narrowly-elliptic, 9–25 mm long, 2–5 mm wide, moderately hairy, indumentum on all surfaces with long erect hairs mainly on the midrib and margins of the abaxial surface; hairs white, patent, 4–6 mm long; lamina base attenuate, narrowed for basal 2–3 mm; margin recurved; apex acute to subacute. *Leaves* subtending the inflorescence usually longer (20–25 mm long vs 9–15 mm) and broader (4–5 mm vs 2–4 mm), exceeding the flowers. *Inflorescence* terminal, triadic or reduced to a single flower, mostly reduced cymose, 1–3 flowered with one flower opening at a time, the remaining two either aborting or opening later; peduncle short, 0.5–1 mm long; flowers bisexual, odour foetid; pedicel 0.5–1 mm long, densely hairy; prophylls linear, 3–4(9) mm long, 0.5–1 mm wide, hairy, apex long-attenuate. *Calyx* black, outer surface moderate-densely hairy, particularly on margins; lobes narrowly linear to narrowly ovate, 7–10 mm long, 0.5–1 mm wide, margin membranous, apex long-attenuate. *Corolla* white, tinged with blue, 9–12 mm long; outer surface glabrous, inner surface densely papillose; tube 4.5–6 mm long; lobes obovate, 6–9.5 mm long, 2–3.5 mm wide, apex rounded to subacute. *Stamens* exserted; filaments inserted in sinus between lobes, 1.5–2 mm long, filiform; anthers 1–2 mm long. *Pistil* 4–6.5 mm long; ovary 1.5–2 mm long, with sparse glandular hairs; style 3–5 mm long; stigma ellipsoid, 2 mm long, 0.5 mm wide. *Capsule* ovoid, 5–6.5 mm long, c. 2 mm wide, sparsely hairy. Seed not seen. (Figure 1)

Other specimens examined. WESTERN AUSTRALIA: E. of Capel, 18 Oct. 2000, R.J. Cranfield 15680, (PERTH 07342101); W. of Capel-Donnybrook road, 22 Oct. 1997, R. Davis 4414 (PERTH 04929349).

Distribution and habitat. Known from three collections from two forest blocks around Donnybrook in south-western Western Australia. Occurs in *Eucalyptus marginata*, *Corymbia haematoxylon* – *Allocasuarina fraseriana* forest or low woodland on exposed colluvial brown clay to sandy clay soils associated with laterite gravels. (Figure 2)

Phenology. Flowering in October.

Conservation status. Conservation Codes for Western Australian Flora: Priority One. This species is known only from two areas close to the type locality and appears to be restricted to a few individuals in each population, none of which are located in conservation reserves. Additional surveys are required to determine whether this species occurs in the Whicher Range area south of the currently known populations.

Etymology. Named in honour of the first author's wife Wendy, who has accompanied him often on field work and supported his botanical career.

Notes. The long white hairs of this species are easily observed and mask the leaves, compared to *Logania serpyllifolia* subsp. *angustifolia*, in which the leaves are sparsely hairy (Figure 1). Many of the specimens of *L. serpyllifolia* subspecies *angustifolia* examined have darkened almost to black, a feature common in *Logania*. This darkening has not been observed in samples of *Logania wendyae*.

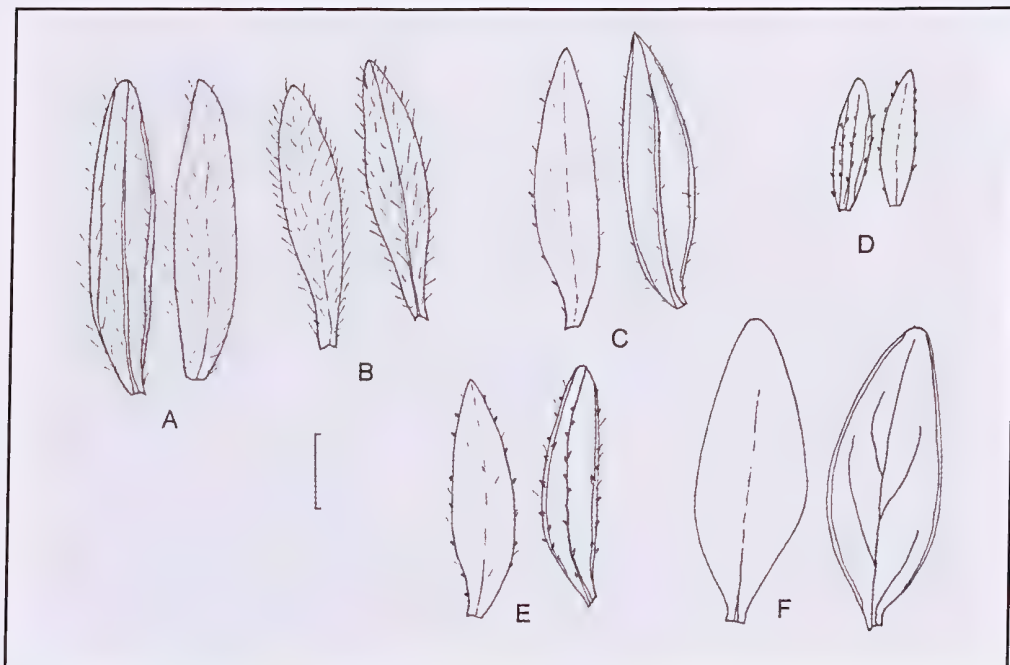


Figure 1. Differences in upper and lower leaf surfaces between *Logania wendyae* and *L. serpyllifolia* subsp. *angustifolia*. A–B *Logania wendyae*, A – R. Davis 4414 (PERTH 04929349), B – G.J. Keighery 150110 (PERTH 05121906). C–F *Logania serpyllifolia* subsp. *angustifolia*, a range of forms, C – B.G. Hammersley 1536 (PERTH 04560779), D – J. Koch s.n. (PERTH 01673548), E – B.J. Conn 3335 (PERTH 03314367), F – R.D. Royce 4654 (PERTH 1670395). Scale bar = 5 mm.

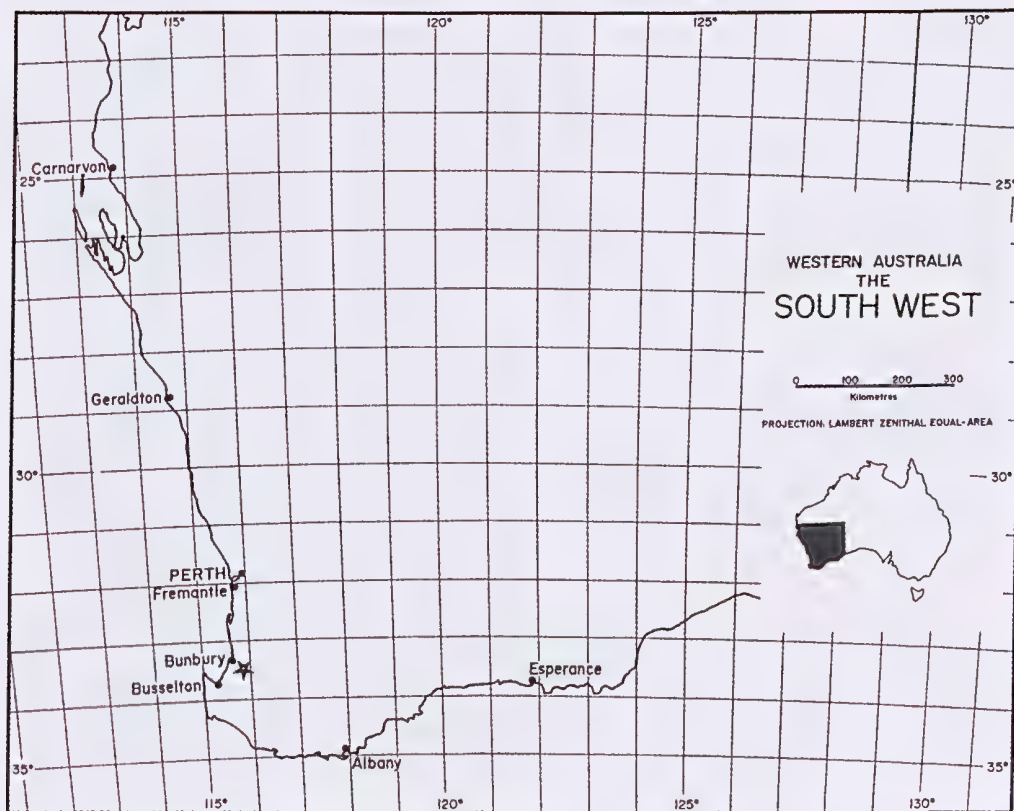


Figure 2. Distribution of *Logania wendyae* (★).

Amendment to the “Flora of Australia” key.

To allow recognition of *L. wendyae*, the key in the “Flora of Australia” (Conn & Brown 1996) should be altered to read:

- 5:** Plant low, branching, erect or spreading; corolla 4–13 mm long;
calyx lobes tapering, subulate or long-attenuate
- 7** Inflorescences terminal on short lateral branches, appearing axillary;
calyx glabrous, usually with a few minute papillae on midrib of outer surface **27. *L. pusilla***
- 7:** Inflorescences distinctly terminal, not on short lateral branches;
outer surface of calyx hairy, particularly medially and marginally
- 7a** Corolla 4.5–8.5 mm long, leaves glabrescent **28. *L. serpyllifolia***
- 7a:** Corolla 10–12 mm long, leaves with persistent long white hairs **34. *L. wendyae***

Acknowledgements

Terry Macfarlane is thanked for his advice and comments while this paper was in preparation.

References

- Conn, B.J. & Brown, E.A. (1996). Loganiaceae. In: A.E. Orchard *et al.* (eds), “Flora of Australia.” Vol. 28, pp 3–28. (Australian Biological Resources Study, Canberra, and CSIRO, Melbourne.)
- Keighery, G.J., Keighery, B.J. and Gibson, N. (1997). A Flora and Vegetation Survey of Dardanup Forest Block. Unpublished report (Department of Conservation and Land Management: Perth.)